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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/539,343

03/31/2000

Dean P. Macri

10559/154001/P7988

1434

20985

7590

05/17/2004

FISH & RICHARDSON, PC
12340 EL CAMINO REAL
SAN DIEGO, CA 92130-2081

EXAMINER

GOOD JOHNSON, MOTILEWA

ART UNIT

PAPER NUMBER

2672

21

DATE MAILED: 05/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/539,343

Applicant(s)

MACRI ET AL.

Examiner

Motilewa A. Good-Johnson

Art Unit

2672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,5,6,8-11,13,15,17-20,22,24,26,27,29 and 30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,5,6,8-11,13,15,17-20,22,24,26,27,29 and 30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>20</u> . | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2672

DETAILED ACTION

1. This office action is responsive to the following communication:
Amendment F, filed 12/24/2003.
2. Claims 1, 3, 5-6, 8-11, 13, 15, 17-20, 22, 24, 26-27 and 29-30 are pending in this application. Claims 1, 9, 11, 18, 20, 27 and 29 are independent claims.
3. The present title of the application is "Trimming Surfaces" (as originally filed).

Continued Examination Under 37 CFR 1.114

4. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114.
Applicant's submission filed on 12/24/2003 has been entered.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2672

6. Claims 1, 3, 5-6, 8-11, 13, 15, 17-20, 22, 24, 26-27 and 29-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fiasconaro, U.S. Patent Number 5,299,302, "Method and Apparatus for Trimming B-Spline Descriptions of Patches in a High Performance Three Dimensional Graphics System, class 345/442, 03/29/1994, in view of Pedersen, *A Framework for Interactive Texturing on Curved Surfaces*.

Regarding claim 1, Fiasconaro discloses a method of trimming a parametric surface, comprising: producing a trimming texture, the trimming texture comprising a texture map image representation of a trimming curve for the parametric surface (a trimming curve mapped, i.e. applies, into patches and creating a mapped trimming curve, col. 8, lines 1-4)

However, it is noted that Fiasconaro fails to disclose applying the trimming texture to the parametric surface, the trimming texture being applied by texture mapping the trimming texture onto the parametric surface to produce trimmed and untrimmed portions; and rendering only the untrimmed portion.

Pedersen discloses interactive texture compositing in which a texture can be sampled and pasted on corresponding polygonal patches, i.e. surfaces, page 297.

It would have been obvious to one of ordinary skill in the art at the time of the invention to allow the trimming texture as disclosed in Fiasconaro to be applied to surfaces for rendering as disclosed in Pedersen to allow for interactive texturing and allowing for various effects in texturing techniques.

Regarding claim 3, drawing a plurality of pixels only in a solid portion of the image that is not a trimmed portion. (Fiasconaro discloses the rendering of a patch having a subtracted portion and not displaying the portion inside the trimming curve, col. 6, lines 1-18)

Regarding claim 5, drawing a plurality of pixels based on an allocation of the trimming texture relative to the parametric surface. (Fiasconaro discloses in figure 6)

Regarding claim 6, producing is performed in a pre-rendering process and applying is performed in a run-time process. (Fiasconaro discloses the generating of the patches is carries out one at a time and that the user may select the step size, col. 7, lines 5-27, therefore making it inherent that the application of the mapped trimmed curve is performed at run time.)

Regarding claim 8, obtaining the trimming texture from a plurality of trimming curves for the parametric surface. (Fiasconaro discloses the trimming method is compatible to handle patches with a high number of trimming curves, col. 2, lines 20-25)

Regarding claim 9, Fiasconaro discloses a method of trimming a parametric surface, comprising: producing a trimming texture, the trimming texture comprising a texture map image representation of a trimming curve for the parametric surface (a trimming curve mapped, i.e. applies, into patches and creating a mapped trimming curve, col. 8, lines 1-4)

However, it is noted that Fiasconaro fails to disclose applying the trimming texture to the parametric surface, the trimming texture being applied by texture

Art Unit: 2672

mapping the trimming texture onto the parametric surface to produce trimmed and untrimmed portions; and rendering only the untrimmed portion.

Pedersen discloses interactive texture compositing in which a texture can be sampled and pasted on corresponding polygonal patches, i.e. surfaces, page 297.

It would have been obvious to one of ordinary skill in the art at the time of the invention to allow the trimming texture as disclosed in Fiasconaro to be applied to surfaces for rendering as disclosed in Pedersen to allow for interactive texturing and allowing for various effects in texturing techniques.

Regarding claim 10, obtaining a material texture for the parametric surface; and applying the material texture to a region of the parametric surface corresponding to the rendered section of the trimming texture.

Regarding claim 11, "an article comprising a computer-readable medium . . .", it is rejected based upon similar rational as above independent claim 1.

Regarding claims 13, 15, 17 they are rejected based upon similar rational as above dependent claims 3, 5, 7 and 8 respectively.

Regarding claim 18, "an article comprising a computer-readable medium . . .", it is rejected based upon similar rational as above independent claim 9.

Regarding claim 19, it is rejected based upon similar rational as above dependent claim 10.

Regarding claim 20, "an apparatus for use in trimming . . .", it is rejected based upon similar rational as above independent claim 1.

Art Unit: 2672

Regarding claims 22, 24 and 26 they are rejected based upon similar rational as above dependent claims 3, 5, 7 and 8 respectively.

Regarding claim 27, "an apparatus . . .", it is rejected based upon similar rational as above independent claim 9.

Regarding claims 29 and 30, they are rejected based upon similar rational as above claims 1 and 5.

Response to Arguments

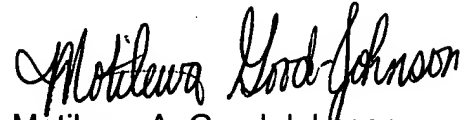
7. Applicant's arguments with respect to claims 1-30 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Motilewa A. Good-Johnson whose telephone number is (703) 305-3939. The examiner can normally be reached on Monday - Friday 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Razavi can be reached on (703) 305-4713. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Art Unit: 2672

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.



Motilewa A. Good-Johnson
Examiner
Art Unit 2672

mgj
May 12, 2004